Application No.: 10/519,510 Applicant(s)

Stephan Hase Title

Method and Simulation System for Simulating Order Processing

Processes... Attorney Docket: 101215-175

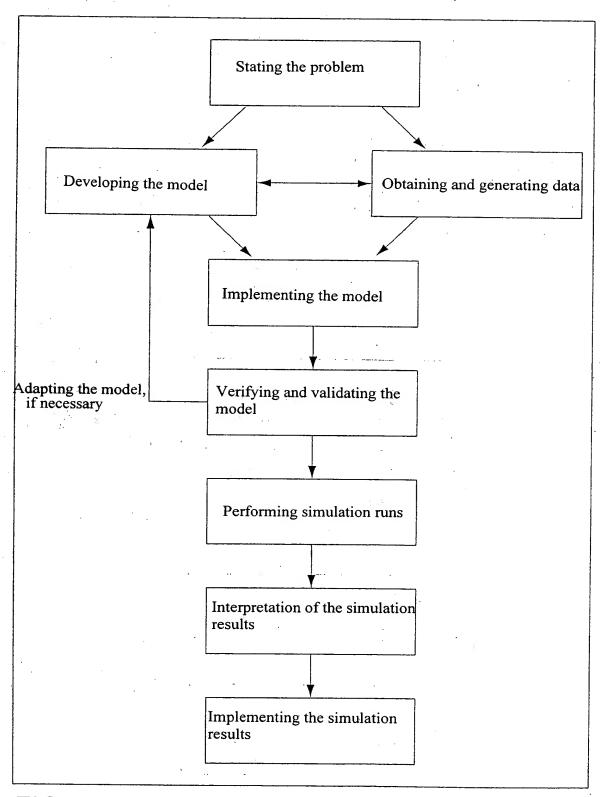


FIG. 1

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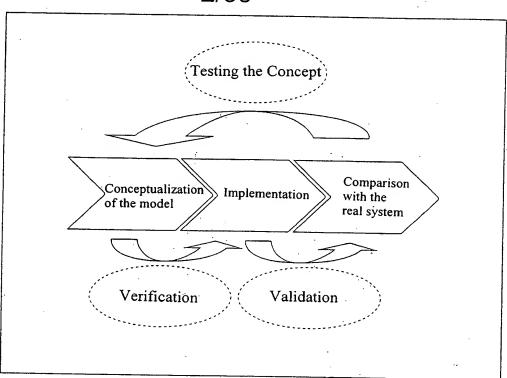


FIG. 2

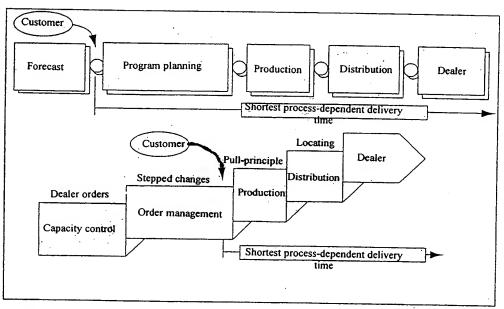
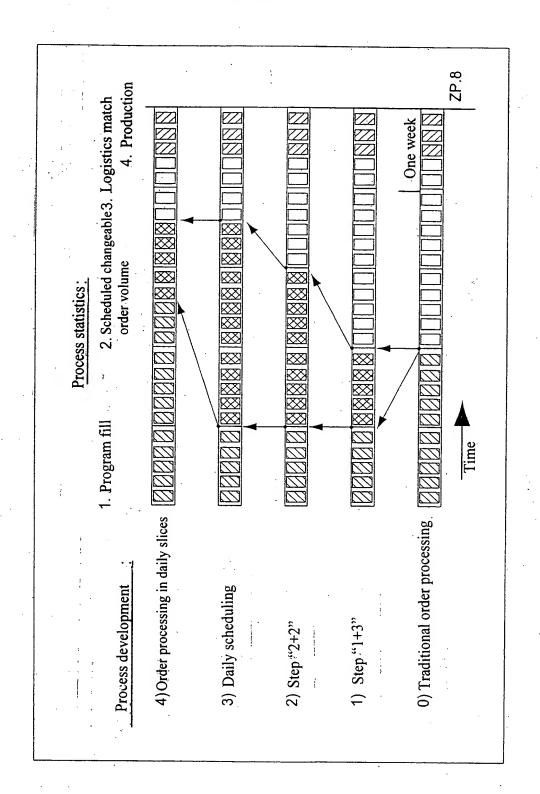


FIG. 3

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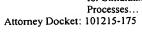


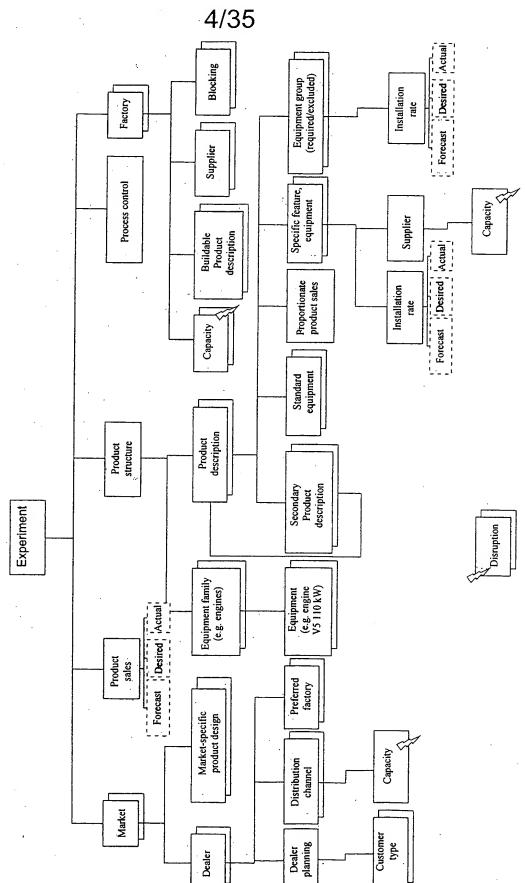
Application No.: 10/519,510

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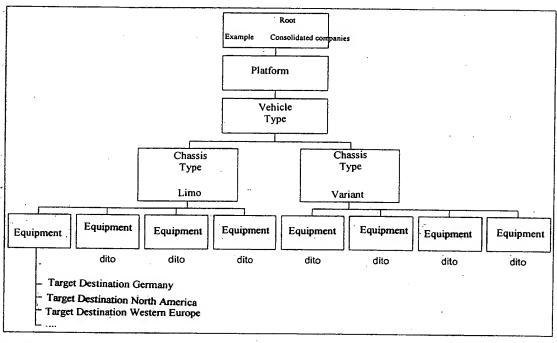


FIG. 6

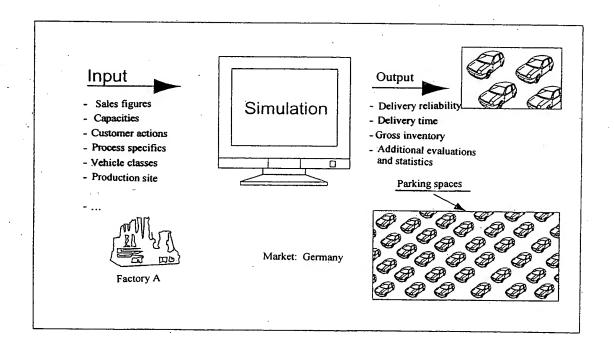


FIG. 7

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Vehicle Type X		Vehicle Type Y	
Interval (Production time in hours)	Fraction	Interval (Production time in hours)	Fraction
0-70 0%		0-48	0%
70-74	10%	48-50	10%
74-75	40%	50-60	40%
75-116	40%	60-91	40%
116-352	10%	91-149	10%

FIG. 8

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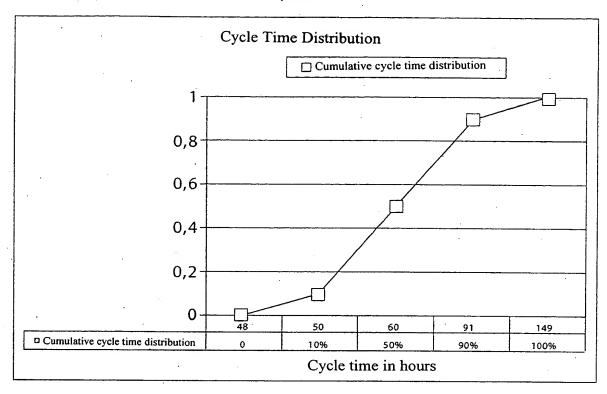


FIG. 9

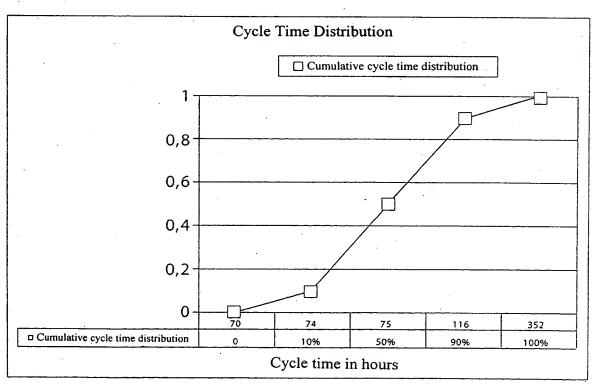


FIG. 10

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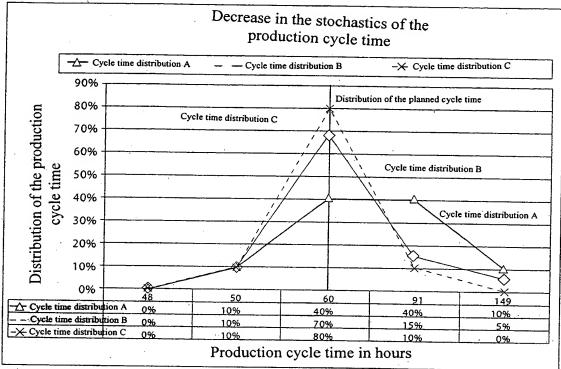


FIG. 11

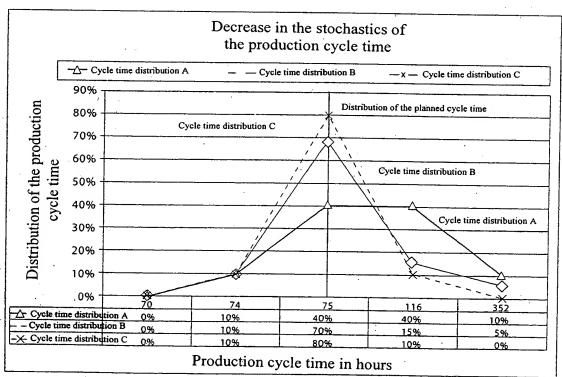
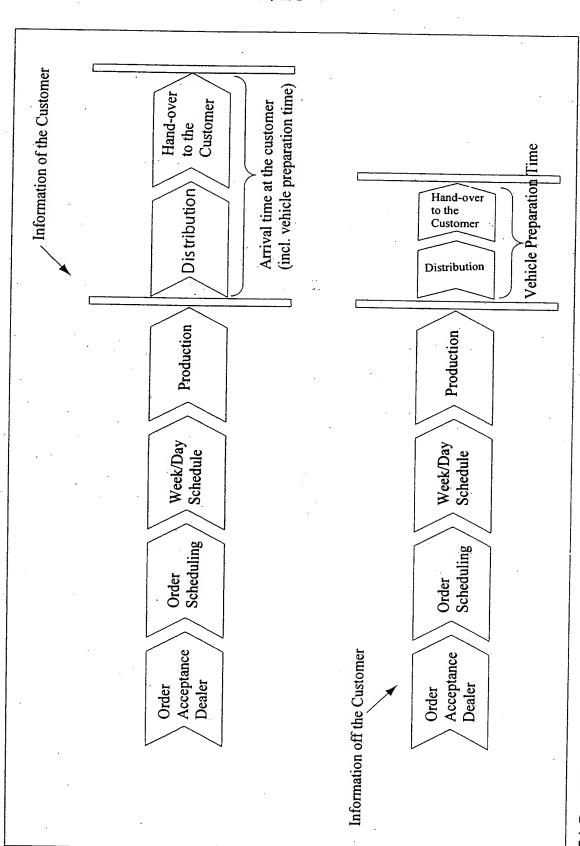


FIG. 12

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Title :

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Parking space requirements for vehicle delivery via a delivery point of the manufacturer(s) (Scenario A; Distribution of the production cycle time A)		Parking space requirements for vehicles to be delivered via a delivery point of the manufacturer(s) and produced in the factory
Configuration step 1: Delivery of 300 vehicles/day	Max. Average Min.	<b>6.216</b> 4.847 3.880
Configuration Step 2: Delivery of 600 vehicles/day	Max. Average Min.	<b>12.121</b> 9.620 7.556
Configuration step 3: Delivery of 1000 vehicles/day	Max. Average Min.	19.130 15.389 12.070

# FIG. 14

Cycle time distribution in production	Standard Deviation Vehicle Type X	Standard deviation Vehicle Type Y	ZP8 reliability (total) per week	ZP8 reliability (total) per wee incl. estimate
DistributionA	60,0 h	22,5 h	68%	76%
DistributionB	38,0 h	16,0 h	72%	83%
Distribution C	7,3 h	7,5 h	75%	. 88%

FIG. 15

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Parking space requirements for vehicle delivery via a delivery point of the manufacturer(s) (Scenario B; Distribution of the production cycle time C)		Parking space requirements for vehicles to be delivered via a delivery point of the manufacturer(s) and produced in the factory	
Configuration step 1: Delivery of 300 vehicles/day	Max. Average - Min.	<b>1.36</b> 6 1.06 789	1
Configuration step 2: Delivery of 600 vehicles/day	Max. Average Min.	2.55 2.020 1.27	6
Configuration step 3: Delivery of 1000 vehicles/day	Max. Average Min.	<b>3.94</b> ( 3.20) 1.570	3

# FIG. 16

Parking space requirements for vehicle delivery via a delivery point of the manufacturer(s) when changing from Scenario A to Scenario B		Parking space requirements for vehicles to be delivered via a delivery point of the manufacturer(s) and produced in the factory
Configuration step 1: Delivery of 300 vehicles/day	Max. Average Min.	<b>4.856</b> 3.831 3.091
Configuration step 2: Delivery of 600 vehicles/day	Max. Average Min.	<b>9.570</b> 7.594 3.880
Configuration step 3: Delivery of 1000 vehicles/day	Max. Average Min.	15.190 12.186 10.500

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Cost savings in committed capital demonstrated by the simulation	9,8 Mio €	19,4 Mio €	39,2 Mio €
Reduction of the average parking space requirement when substituting Scenario A; Production cycle time distribution A by Scenario B; Production cycle time	manufactured in factory A) 3.831	7.594	15.389
Configuration steps of vehicle delivery via a delivery point of the manufacturer(s)	Configuration step 1: Delivery of 300 vehicles/day	Configuration step 2: Delivery of 600 vehicles/day	Configuration step 3: Delivery of 1000 vehicles/day

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Cost savings in committed capital demonstrated by the simulation	72,4 Mio €	74,4 Mio €	77,2 Mio €
Reduction of the average shipping time when substituting Scenario A; Production cycle time distribution A by Scenario B; Production cycle time distribution C	10.08 per day	10.51 per day	10.91 per day
Configuration steps of vehicle delivery via a delivery point of the manufacturer(s)	Configuration step 1: Delivery of 300 vehicles/day	Configuration step 2: Delivery of 600 vehicles/day	Configuration step 3: Delivery of 1000 vehicles/day

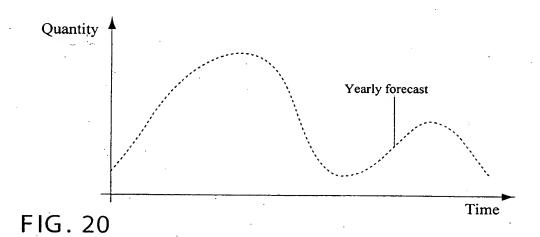
Application No. : 10/519,510 Applicant(s)
Title

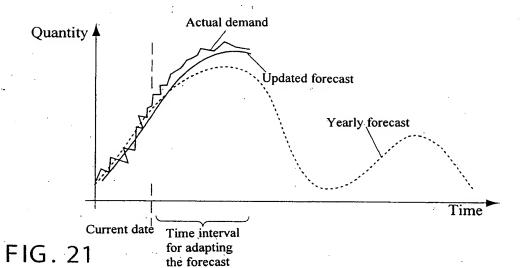
Stephan Hase

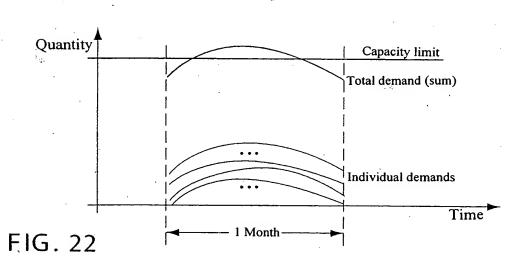
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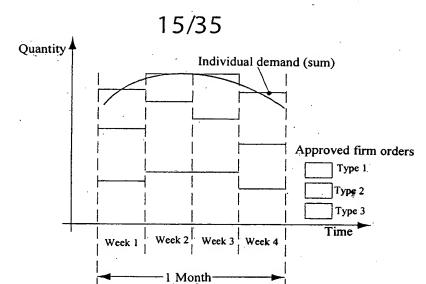
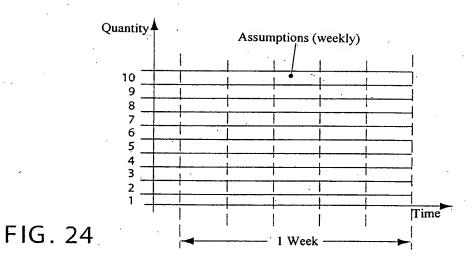


FIG. 23



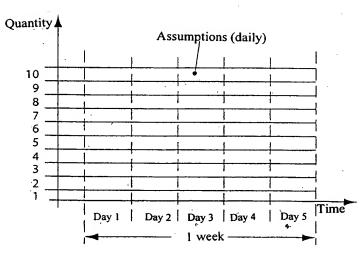


FIG. 25

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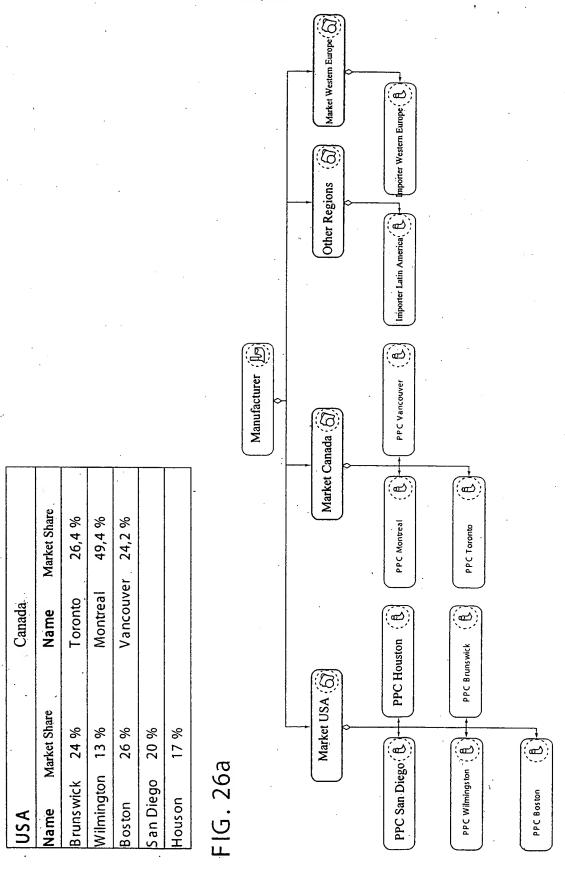


FIG. 26b

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Engines		Transmission		Climate Control
1,4   55 kW	MN7	4-speed automatic transmission		Heater with mechanical 9AA Control
1,6 l 75 kW	MN7	5-speed manual transmission	GOC	Manual climate control 9A0
1,6   75.kW				
1,9				
2,0 l 85 kW	MR4			

# FIG. 27a

Radios		Colors		Тор	
Radio Alpha	8AB	Alaska Green	V7V7	Manual Top	3FM
Radio Gamma	8A0	Tan		Electrical Top	3FT
No radio	8AA	Black	A1A1.		
		Campanella White	R6R6		
		Clementine 2	TITI		
		Cybergreen metallic	L9L9		
		Light Gray Solid 2			
		Red	P2P2		
· 		Reflecting Silver Metallic	8E 8E		<del></del> ,
•		R oyal Navy	7W7W		
		S peed Blue	V8V8		
·		Yukon Yellow			

FIG. 27b

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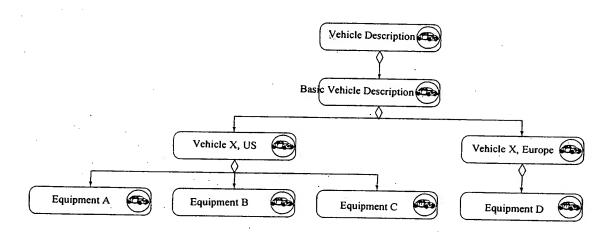
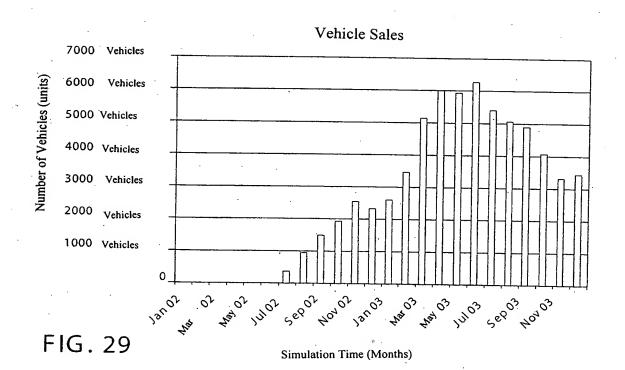


FIG. 28



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· · · · · · · · · · · · · · · · · · ·	37.1.1. O.1		
	Vehicle Sales		
<u>Jan 01</u>			0
<u>Feb 01</u>			0
Mar 01			0
Apr 01			0
May 01			0
Jun 01	10	Vehicle(s)	
Jul 01	335	Vehicle(s)	
Aug 01	915	Vehicle(s)	
Sep 01	1470	Vehicle(s)	
Oct 01	1922	Vehicle(s)	
Nov 01	2553	Vehicle(s)	
Dec 01	2325	Vehicle(s)	
Jan 01	2609	Vehicle(s)	
Feb 01	3487	Vehiclē(s)	
Mar 01	5169	Vehicle(s)	

Apr 02	6004	Vehicle(s)
May 02	5952	Vehicle(s)
Jun 02	6271	Vehicle(s)
Jul 02	5414	Vehicle(s)
Aug 02	5084	Vehicle(s)
Sep 02	4915	Vehicle(s)
Oct 02	4093	Vehicle(s)
Nov 02	3328	Vehicle(s)
@ Dec 02	3459	Vehicle(s)

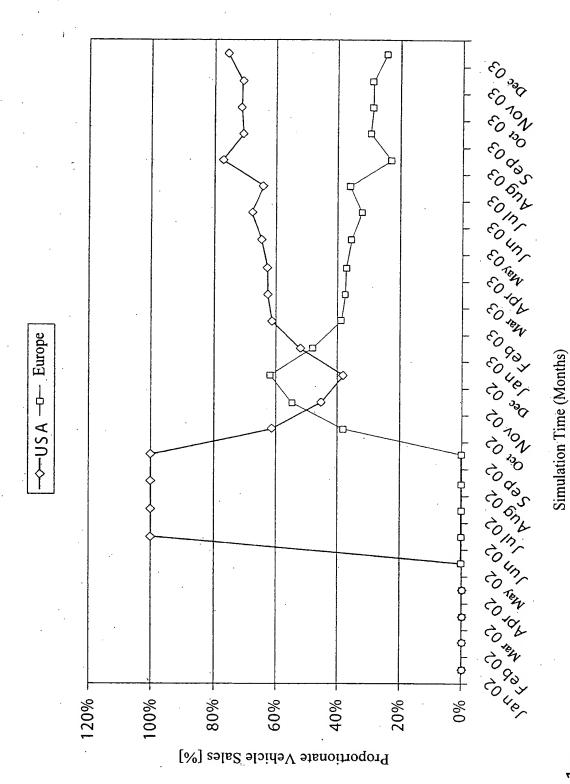
FIG. 30

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Applicant(s) : Stephan Hase
Title : Method and St

Jan 01

Dec 02

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Europe 0,00%

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USA 0,00%

Feb 01	0,00%	0,00%
Mar 01	0,00%	0,00%
Apr 01	0,00%	0,00%
May 01	0,00%	0,00%
·		
Jun 01	100,00%	0,00%
Jul 01	100,00%	0,00%
Aug 01	100,00%	0,00%
Sep 01	100,00%	0,00%
Oct 01	61,55%	38,45%
Nov 01	45,36%	54,64%
Dec 01	38,24%	61,76%
Jan 02	52,01%	47,99%
Feb 02	61,28%	38,72%
Mar 02	62,55%	37,45%
Apr 02	62,69%	37,31%
May 02	64,38%	35,62%
Jun 02	67,79%	32,21%
Jul 02	63,87%	36,13%
Aug 02	77,34%	22,66%
Sep 02	70,56%	29,44%
Oct 02	71,27%	28,73%
Nov 02	71,24%	28,76%

75,51%

FIG. 31b

10/51001

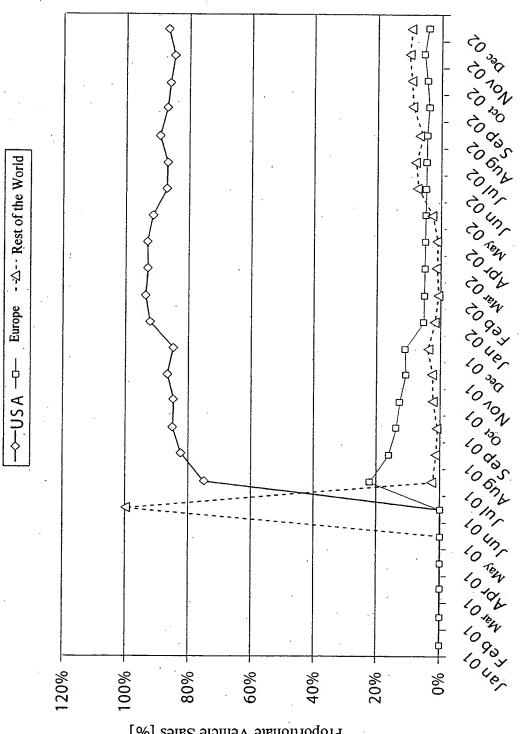
Application No.: 10/519,510 Applicant(s) : Stephan Has Stephan Hase

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Proportionate Vehicle Sales [%]

Simulation Time (Months)

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	<u> </u>		
	USA	Europe	Rest of the World
Jan 01	0,00%	0,00%	0,00%
Feb 01	0,00%	0,00%	0,00%
Mar 01	0,00%	0,00%	0,00%
Apr 01	0,00%	0,00%	0,00%
May 01	0,00%	0,00%	0,00%
Jun 01	0,00%	0,00%	100,00%
Jul 01	74,63%	22,39%	2,99%
Aug 01	81,97%	16,39%	1,64%
Sep 01	85,03%	13,61%	1,36%
Oct 01	84,53%	12,68%	2,79%
Nov 01	86,36%	10,79%	2,85%
Dec 01	84,36%	11,25%	4,39%
Jan 02	92,11%	5,53%	2,36%
Feb 02	93,59%	5,38%	1,03%
Mar 02	92,79%	5,41%	1,79%
Apr 02	92,99%	5,31%	1,70%
May 02	91,34%	5,22%	3,44%
Jun 02	87,04%	5,29%	7,67%
Jul 02	86,76%	5,06%	8,18%
Aug 02	89,01%	5,09%	5,90%
Sep 02	86,51%	4,33%	9,17%
Oct 02	85,70%	4,80%	9,50%
Nov 02	84,35%	5,48%	10,16%
Dec 02	86,14%	4,40%	9,46%

FIG. 32b

Holidays			
01.Jan.2001 KW 1	05. May . 2001 KW 18	20:Jul.2001 KW 29	24. <sub>Dec</sub> .2001 KW 52
		15.Sep.2001 KW 37	25. Dec2001 KW 52
26. Mar. 2001 KW 13		16.Sep.2001 KW 37	26. Dec .2001 KW 52
27. маг.2001 KW 13		28.Sep.2001 KW 39	27. Dec .2001 KW 52
28. Mar. 2001 KW 13	05.Jul.2001 KW 29	01.Nov.2001 KW 44	28. Dec. 2001 KW 52
29. <sub>Mar</sub> .2001 KW 13		02.Nov.2001 KW 44	29. Dec 2001 KW 52
30. Mar.2001 KW 13	05.Jul.2001 KW 29	12. Dec. 2001 KW 50	30. D∞ .2001 KW 52
01. May., 2001 KW 18	05.Jul.2001 KW 29	23 Dec.2001 KW 51	31. Dec .2001 KW 53

FIG. 33

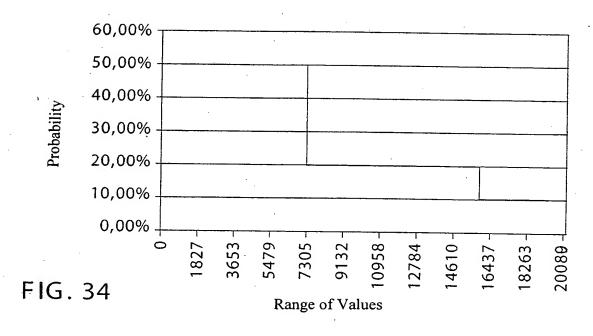
Application No. : Applicant(s)
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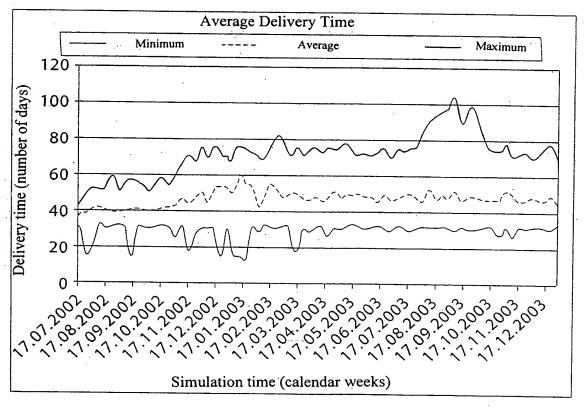


FIG. 35

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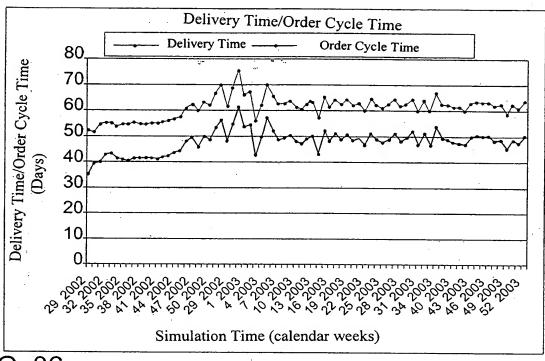


FIG. 36

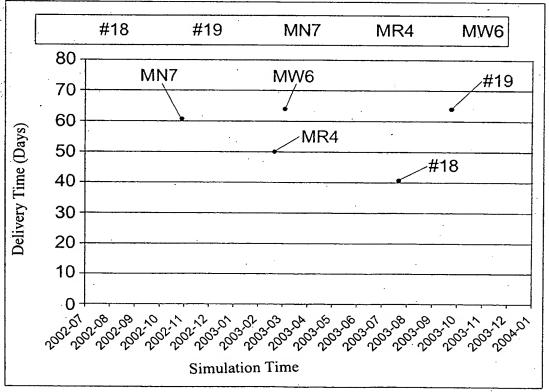


FIG. 37

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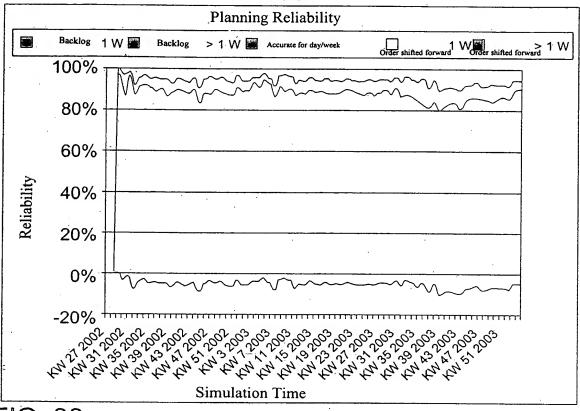


FIG. 38

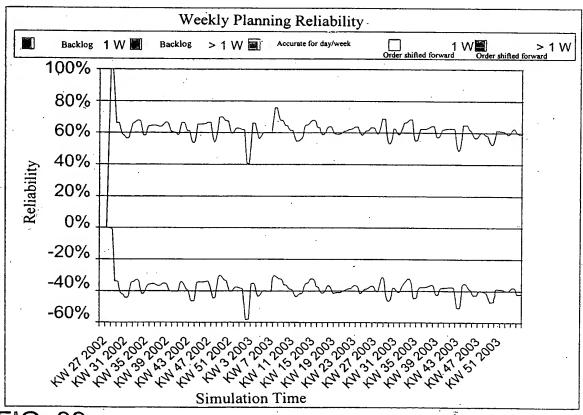


FIG. 39

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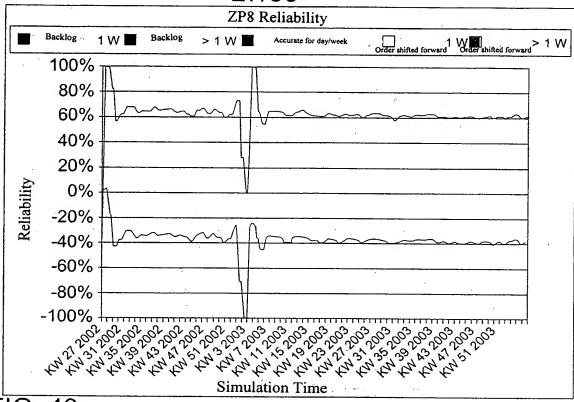
Stephan Hase

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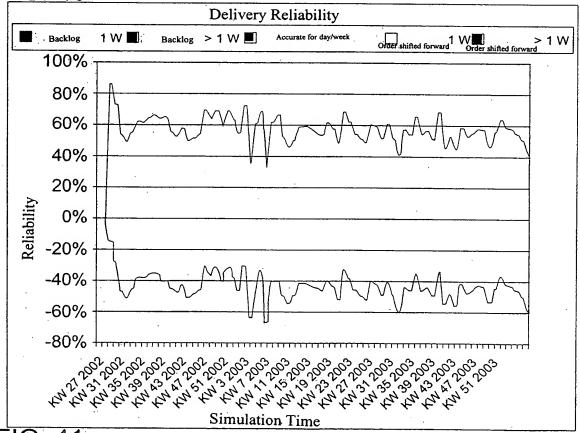


FIG. 41

Application No.: 10/519,510 Applicant(s) : Stephan Ha Title : Method and Stephan Hase

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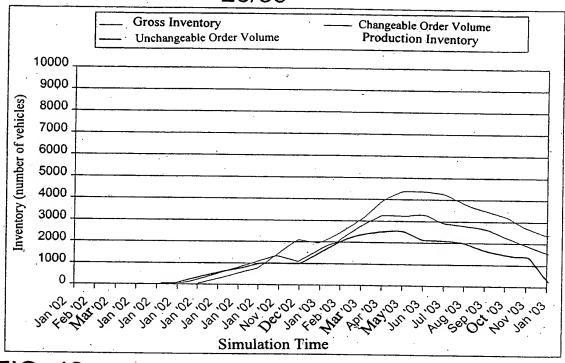


FIG. 42

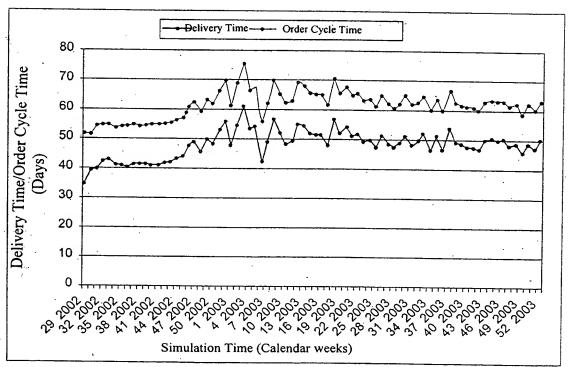


FIG. 43

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Stephan Hase Title

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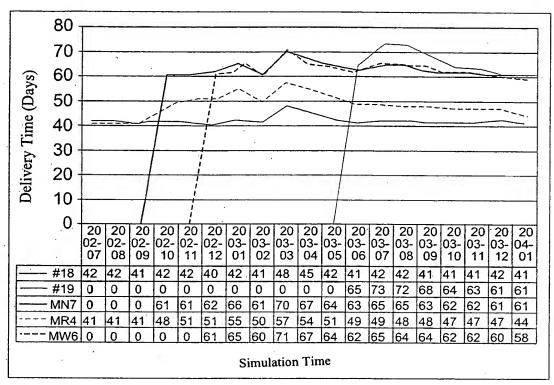


FIG. 44

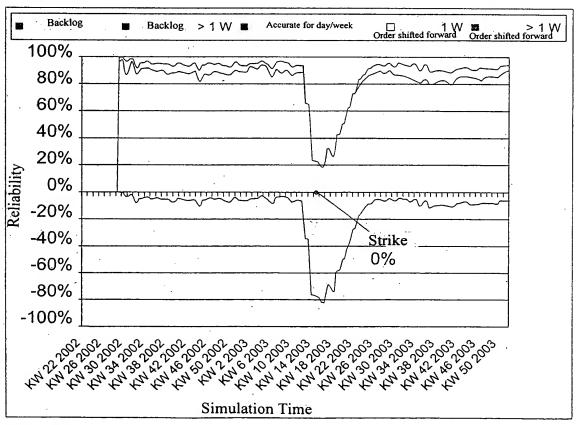


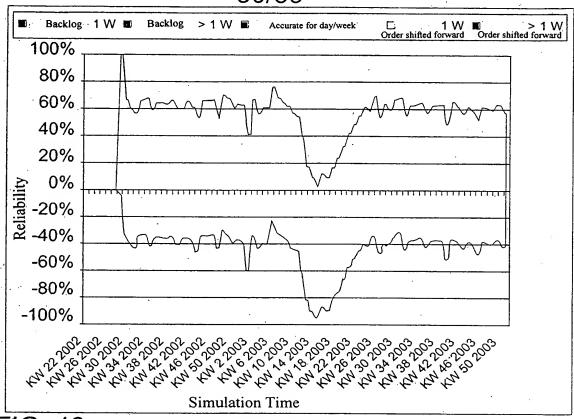
FIG. 45

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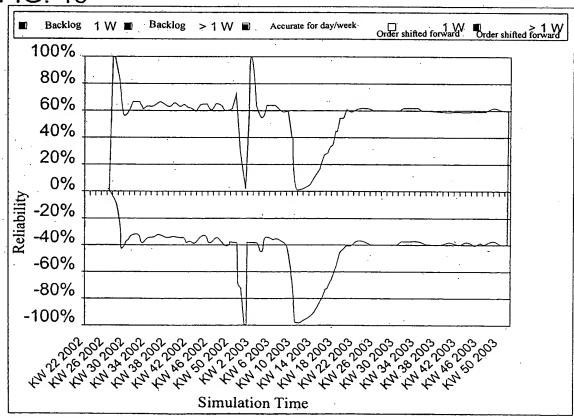


FIG. 47

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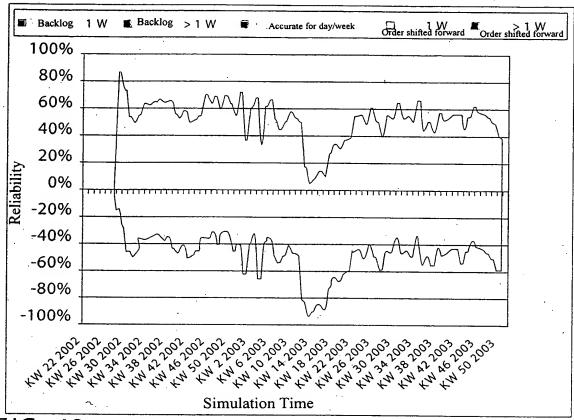


FIG. 48

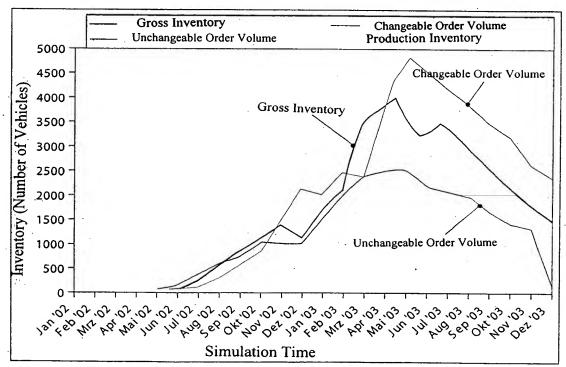


FIG. 49

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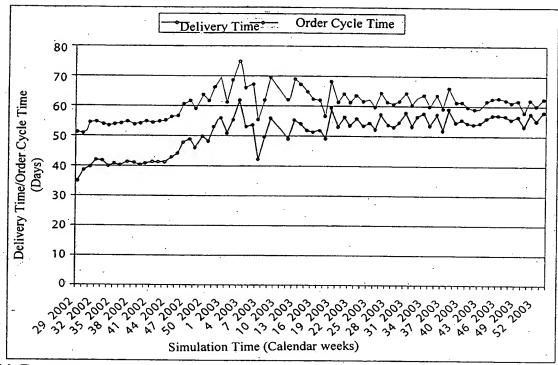


FIG. 50

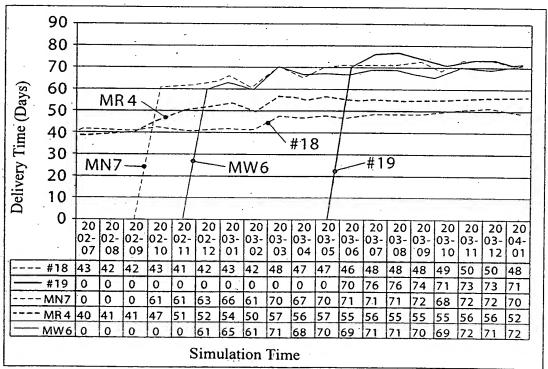


FIG. 51

Application No. : 10/519,510

Stephan Hase Applicant(s) Title

Method and Simulation System for Simulating Order Processing

Processes... Attorney Docket : 101215-175

33/35

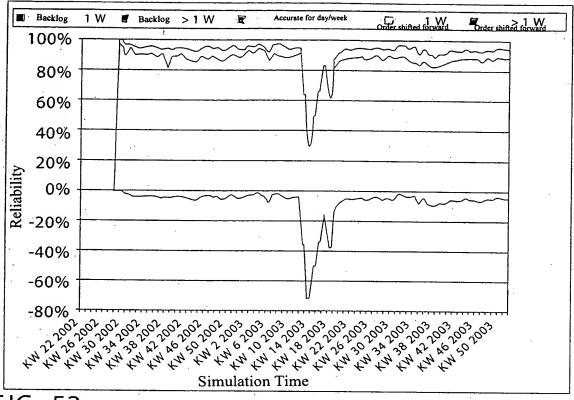


FIG. 52

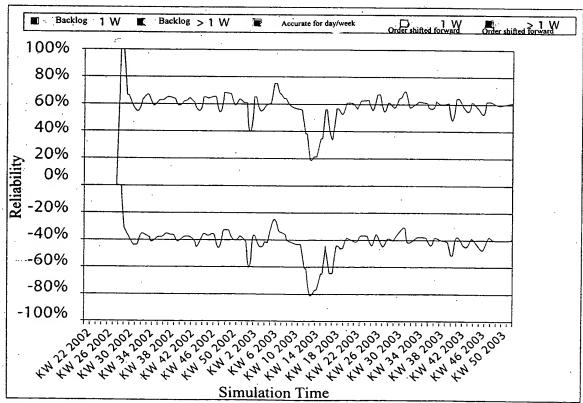


FIG. 53

Application No.: 10/519,510 Applicant(s) : Stephan Hase

Title : Method and Simulation System

for Simulating Order Processing Processes...

Attorney Docket: 101215-175

34/35

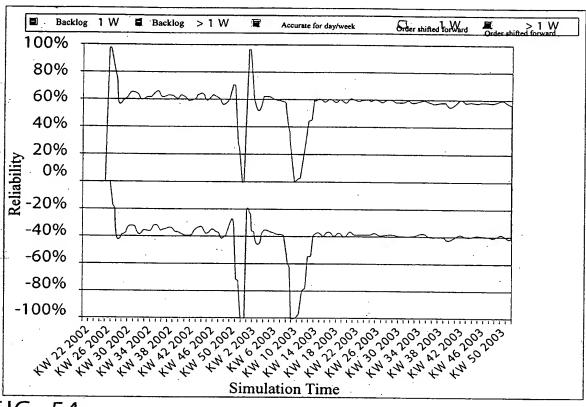


FIG. 54

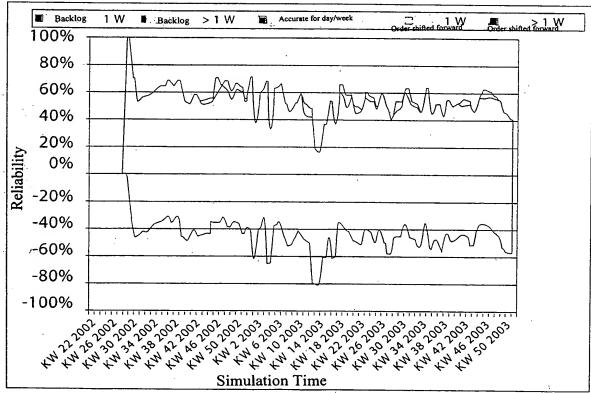


FIG. 55

Application No. : 10/519,510 Applicant(s)
Title

Stephan Hase

Method and Simulation System for Simulating Order Processing

Processes...

Attorney Docket : 101215-175

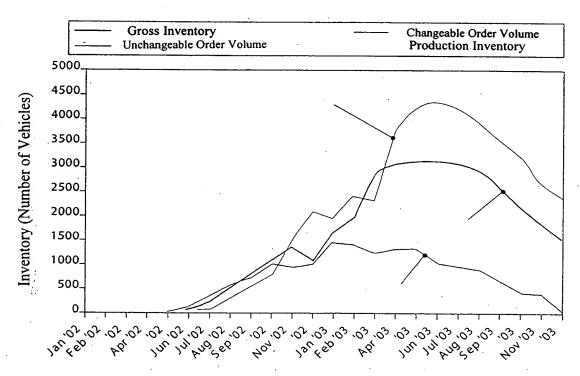


FIG. 56

Simulation Time

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